

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-25 (Cancelled)

26. (Currently Amended) A process for the manufacture of an alkaloid reaction product comprising ~~at least one a~~ an alkaloid *chelidonine* derivative having a quaternary nitrogen, the process comprising:

- a) providing a reaction mixture comprising an organic solvent, ~~at least one alkaloid present in the herb *Chelidonium majus* L.,~~ an alkaloid which is *chelidonine*, and an alkylating agent, and carrying out an alkylation reaction by reacting the ~~at least one alkaloid *chelidonine*~~ with the alkylating agent in the presence of the organic solvent, so as to form ~~at least one a~~ an alkaloid *chelidonine* derivative having a quaternary nitrogen;
- b) after termination of the alkylation reaction, subjecting the resulting reaction mixture to at least one washing step with an aqueous solvent or water, to remove water-soluble compounds present in the reaction mixture; and
- c) subjecting the washed reaction mixture to a treatment with a strong acid in gaseous or liquid form, thereby converting ~~at least one the~~ the quaternary ~~alkaloid *chelidonine*~~ alkaloid *chelidonine* derivative in the reaction mixture into a water soluble form.

27. (Cancelled)

28. (Previously Presented) The process according to claim 26, wherein in step c) the washed reaction mixture is subjected to a treatment with gaseous hydrogen chloride or a hydrogen chloride solution.

29. (Currently Amended) The process according to claim 26, wherein in step c) ~~at least one the~~ the quaternary ~~alkaloid *chelidonine*~~ alkaloid *chelidonine* derivative is converted into a water-soluble salt.

30. (Previously Presented) The process according to claim 26, wherein in step c) a reaction product precipitates during or after the treatment with acid, whereafter the precipitate is separated from the organic solvent, and optionally further purified using organic solvents.

31. (Previously Presented) The process according to claim 26, wherein the alkylation reaction is carried out at elevated temperature.

32. (Previously Presented) The process according to claim 31, wherein the alkylation reaction is carried out at the boiling point of the solvent.
33. (Canceled)
34. (Cancelled)
35. (Previously Presented) The process according to claim 26, wherein the alkylating agent is a physiologically active agent.
36. (Previously Presented) The process according to claim 35, wherein the alkylating agent is a cytotoxic agent.
37. (Previously Presented) The process according to claim 26, wherein the alkylating agent is water-soluble or decomposes into water-soluble components upon contact with water.
38. (Previously Presented) The process according to claim 26, wherein the organic solvent is selected from the group consisting of monochloromethane, dichloromethane, trichloromethane, monochloroethane, dichloroethane and trichloroethane.
39. (Previously Presented) The process according to claim 26, wherein the alkylating agent is tris(1-aziridiny)phosphine sulphide (CAS 52-24-4).
40. (Currently Amended) The process according to claim 26, wherein said ~~alkaloid~~ chelidone derivative has a quaternary nitrogen atom to which, as a fourth ligand, a hydrogen residue or a residue originating from the alkylating agent is bound.
41. (Previously Presented) The process according to claim 40, wherein the residue is selected from the group consisting of a methyl, an ethyl and a tris(1-aziridiny)phosphine sulphide residue.
42. (Currently Amended) The process according to claim 26, wherein said ~~alkaloid~~ chelidone derivative has a quaternary nitrogen atom and, as a fourth ligand of said nitrogen, a decomposition product formed due to the treatment with acid.

43. (Currently Amended) An alkaloid reaction product comprising ~~at least one a~~ an alkaloid chelidone derivative other than sanguinarine and M-methylprotopine chloride, the derivative having a quaternary nitrogen and the alkaloid being selected from the group of alkaloids present in the herb *Chelidonium majus* L., wherein the chelidone derivative is present in water-soluble form and wherein the alkaloid reaction process is useful for use as a drug or medicament.

44. (Cancelled)

45. (Currently Amended) The alkaloid reaction product according to claim 43, obtained by a process comprising:

- a) providing a reaction mixture comprising an organic solvent, ~~at least one an~~ an alkaloid which is chelidone present in the herb *Chelidonium majus* L., and an alkylating agent, and carrying out an alkylation reaction by reacting the ~~at least one alkaloid~~ chelidone with the alkylating agent in the presence of the organic solvent, so as to form ~~at least one a~~ an alkaloid chelidone derivative having a quaternary nitrogen;
- b) after termination of the alkylation reaction, subjecting the resulting reaction mixture to at least one washing step with an aqueous solvent or water, to remove water-soluble compounds present in the reaction mixture; and
- c) subjecting the washed reaction mixture to a treatment with a strong acid in gaseous or liquid form, thereby converting ~~at least one the~~ the quaternary ~~alkaloid~~ chelidone derivative in the reaction mixture into a water soluble form

46. (Currently Amended) The alkaloid reaction product according to claim 45, obtained through reaction of ~~one or more alkaloids~~ chelidone with an alkylating agent, wherein in the product an initially tertiary nitrogen is present in quaternary form to which, as a fourth ligand, a hydrogen residue or a residue originating from the alkylating agent is bound.

47. (Previously Presented) The alkaloid reaction product according to claim 46, wherein the residue is selected from the group consisting of a methyl, an ethyl, and tris(1-aziridinyl)phosphine sulphide residue, or from tris(1-aziridinyl)phosphine sulphide.

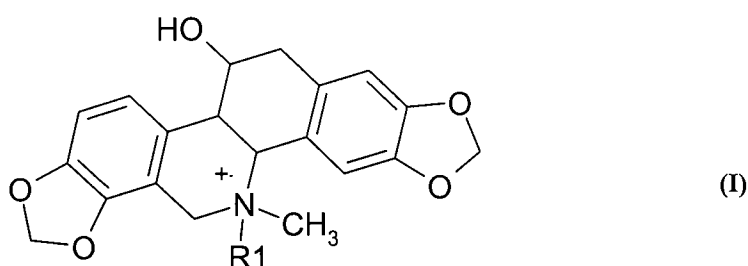
48. (Currently Amended) The alkaloid reaction product according to claim 45, wherein the chelidone ~~at least one alkaloid~~ derivative is present in the form of a water-soluble salt.

49. (Currently Amended) The alkaloid reaction product according to claim 48, wherein the chelidone ~~at least one alkaloid~~ derivative is present in the form of a hydrochloride.

50. (Cancelled)

51. (Currently Amended) The alkaloid reaction product according to claim 45, wherein the product further comprises at least one compound selected from the group consisting of unreacted tertiary ~~alkaloids~~ chelidonine, unreacted alkylating agent, and decomposition products of the alkylating agent.

52. (Currently Amended) A chelidonine derivative, wherein the naturally occurring chelidonine is present in a quaternated form according to formula (I),



wherein as a fourth ligand R1 to the quaternary nitrogen a hydrogen or a methyl or ethyl residue is present, wherein the derivative is present in water-soluble form and is useful as a drug or a medicament.

53. (Cancelled)

54. (Currently Amended) The chelidonine derivative according to claim [[53]] 52 in the form of a salt of a strong acid.

55. (Currently Amended) The chelidonine derivative according to claim [[53]] 52 in the form of a hydrochloride.

56. (Cancelled)

57. (Currently Amended) A method of manufacture of a pharmaceutical composition for the ~~prophylaxis or~~ treatment of a disease or bodily condition selected from the group consisting of viral infection, cancer, immunological dysfunction, metabolic dysfunction and radiation damage, wherein the method comprises adding to said composition an alkaloid reaction product as

~~defined in any one of claims 43, 45-49 and 51, comprising at least one alkaloid derivative other than sanguinarine and M-methylprotopine chloride, the derivative having a quaternary nitrogen and the alkaloid being selected from the group of alkaloids present in the herb *Chelidonium majus* L..~~

58. (Cancelled)

59. (Previously Presented) The method according to claim 57, wherein the disease is selected from the group consisting of allergies, osteoporosis, skin tumours, influenza virus infections, rheumatic diseases, scars, postoperative wounds, epilepsy and multiple sclerosis.

60. (Cancelled)

61. (Currently Amended) A method of manufacture of a pharmaceutical composition for the ~~prophylaxis or~~ treatment of a disease or bodily condition selected from the group consisting of viral infection, cancer, immunological dysfunction, metabolic dysfunction and radiation damage, wherein the method comprises the addition of the chelidonine derivative of claim 52 to said composition.

62. (Previously Presented) The method according to claim 61, wherein the disease is selected from the group consisting of allergies, osteoporosis, skin tumours, influenza virus infections, rheumatic diseases, scars, postoperative wounds, epilepsy and multiple sclerosis.